

What is claimed is:

1. A light emitting device comprising:

an organic EL element comprising a light emitting layer comprising an organic compound in which an EL is obtained and a metal complex,

wherein the metal complex comprises a lattice structure in which metal atoms and ligands are alternately arranged, and

wherein the metal atoms are located in lattice points and the lattice points are cross-linked through the ligands in the lattice structure.

2. A light emitting device comprising:

an organic EL element comprising a light emitting layer comprising an organic compound in which an EL is obtained and a metal complex,

wherein the metal complex comprises a lattice structure in which metal atoms and ligands are alternately arranged, and

wherein the ligands are located in lattice points and the lattice points are cross-linked through the metal atoms in the lattice structure.

3. A light emitting device according to claim 1 wherein the metal atom has an atomic number equal to or larger than rubidium.

4. A light emitting device according to claim 2 wherein the metal atom has an atomic number equal to or larger than rubidium.

5. A light emitting device comprising:

an organic EL element comprising a light emitting layer comprising an organic compound in which an EL is obtained and a metal complex with a dinuclear structure comprising two metal atoms as nuclei,

wherein the metal complex comprises a lattice structure in which sites with the dinuclear structure and ligands are alternately arranged, and

wherein the sites with the dinuclear structure are located in lattice points and the lattice points are cross-linked through the ligands in the lattice structure.

6. A light emitting device comprising:

an organic EL element comprising a light emitting layer comprising an organic compound in which an EL is obtained and a metal complex with a dinuclear structure comprising two metal atoms as nuclei,

wherein the metal complex comprises a lattice structure in which sites with the dinuclear structure and ligands are alternately arranged, and

wherein the ligands are located in lattice points and the lattice points are cross-linked through the sites with the dinuclear structure in the lattice structure.

7. A light emitting device according to claim 5, wherein the metal atom is one element selected from the group consisting of group 5 to 11 elements of the periodic table.

8. A light emitting device according to claim 6, wherein the metal atom is one element selected from the group consisting of group 5 to 11 elements of the periodic table.

9. A light emitting device comprising:

an organic EL element comprising a light emitting layer comprising an organic compound in which an EL is obtained and a metal complex with a dinuclear structure comprising two metal atoms as nuclei,

wherein the metal complex comprises a divalent metal ion of one element selected from the group consisting of group 5 to 11 elements of the periodic table and a ligand comprising a dicarboxylic ion.

10. A light emitting device comprising:

an organic EL element comprising a light emitting layer comprising an organic compound in which an EL is obtained and a metal complex with a dinuclear structure comprising two metal atoms as nuclei,

wherein the metal complex comprises a divalent metal ion of one element selected from the group consisting of group 5 to 11 elements of the periodic table and a ligand represented by the general formula,

[Chemical Formula 1]

where **a** denotes one selected from the group consisting of a substituent comprising a paraphenylene group, a substituent comprising a heterocyclic ring, and a substituent comprising a condensed ring.

11. A light emitting device comprising:

an organic EL element comprising a light emitting layer comprising an organic compound in which an EL is obtained and a metal complex with a dinuclear structure comprising two metal atoms as nuclei,

wherein the metal complex comprises a divalent metal ion of one element selected from the group consisting of group 5 to 11 elements of the periodic table and a ligand represented by the general formula,

[Chemical Formula 2]

where **b** denotes at least one cycloalkylene group and the **b** may comprise a substituent.

12. A light emitting device comprising:

an organic EL element comprising a light emitting layer comprising an organic compound in which an EL is obtained and a metal complex with a dinuclear structure comprising two metal atoms as nuclei,

wherein the metal complex comprises a divalent metal ion of one element selected from the group consisting of group 5 to 11 elements of the periodic table and a ligand represented by the general formula,

[Chemical Formula 3]

where **n** denotes an integer equal to or larger than 1.

13. A light emitting device comprising:

an organic EL element comprising a light emitting layer comprising an organic compound in which an EL is obtained and a metal complex with a dinuclear structure comprising two metal atoms as nuclei,

wherein the metal complex comprises a divalent metal ion of one element selected from the group consisting of group 5 to 11 elements of the periodic table and a ligand represented by the general formula,

[Chemical Formula 4]

where **c** denotes one selected from the group consisting of a substituent comprising an aryl group, a substituent comprising a heterocyclic ring, and a substituent comprising a condensed ring.

14. An electronic device comprising the light emitting device according to claim 1.
15. An electronic device comprising the light emitting device according to claim 2.
16. An electronic device comprising the light emitting device according to claim 5.
17. An electronic device comprising the light emitting device according to claim 6.
18. An electronic device comprising the light emitting device according to claim 9.
19. An electronic device comprising the light emitting device according to claim 10.

20. An electronic device comprising the light emitting device according to claim 11.
21. An electronic device comprising the light emitting device according to claim 12.